



PATENT
Attorney Docket No. 24460

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:

BECKER et al.

Examiner: J. Taylor

Serial No.: 09/718,425

Art Unit: 1634

Filed: November 24, 2000

For: **METHOD AND SYSTEM FOR PREDICTING AMINO ACID SEQUENCES
COMPATIBLE WITH A SPECIFIED THREE DIMENSIONAL STRUCTURE**

RESPONSE TO RESTRICTION/ELECTION REQUIREMENT

Commissioner for Patents
Washington, D.C. 20231

Sir:

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This is in response to the Official Action dated May 15, 2002.
The one-month shortened statutory period for response is set to
expire June 15, 2002. Accordingly, this Response is filed within
the period for reply set by the Examiner.

REMARKS

Claims 1-22 are currently pending in the present application.

SUMMARY OF RESTRICTION REQUIREMENT

The Examiner has required restriction of claims 1-22 under 35
U.S.C. 121 to a single invention encompassed by the claims as
follows:

Restriction to one of the following inventions is
required under 35 U.S.C. 121:

- I. Claims 1-17 and 22, drawn to a computer-implemented
method for predicting at least one amino acid
sequence, classified in class 364, subclass 400.
- II. Claims 18-19, drawn to an amino acid sequence,
classified in class 530, subclass 350.
- III. Claim 20, drawn to a nucleic acid sequence,
classified in class 435, subclass 6.

IV. Claim 21, drawn to a computer-based system, classified in class 360, subclass 135.

Inventions I and II are related as process of making and product made. The inventions are distinct if either or both of the following can be shown: (1) that the process as claimed can be used to make other and materially different product or (2) that the product as claimed can be made by another and materially different process (MPEP § 806.05(f)). In the instant case the amino acid may be made by a materially different process; i.e., the product may occur in nature or be synthesized by one of the multiple amino acid synthesis methods known in the art. Inventions II and III are unrelated. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different modes of operation, different functions, or different effects (MPEP § 806.04, MPEP § 808.01). In the instant case the different inventions are drawn to a nucleic acid and an amino acid, which have different function, i.e., the nucleic acid codes for amino acids and the amino acids are used to create proteins, which are used for various purposes in the cell, including enzymatic functions, structural functions, etc. The nucleic acid is capable of functioning to code for a peptide without the peptide being present, and can be used by the practitioner to create probes, primers, and for diagnostic purposes without the presence of the peptide. Furthermore, the peptide is capable of functioning without the nucleic acid being present in the cell, as well as being useful to the practitioner. The inventions are distinct, each from the other because of the following reasons:

Inventions I and IV are related as process and apparatus for its practice. The inventions are distinct if it can be shown that either: (1) the process as claimed can be practiced by another materially different apparatus or by hand, or (2) the apparatus as claimed can be used to practice another and materially different process. (MPEP § 806.05(e)). In this case of groups I and IV, the process may be practiced by another materially different apparatus. For instance, the apparatus of Group IV teaches different memories, which are not all necessary for practicing the method of Group I. Furthermore, the apparatus is useable with methods other than those presented in Group I. For instance, the apparatus may be used to confirm an already-known amino acid structure, in which case the steps of the method would be different.

Inventions I, III and IV are unrelated. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different modes of operation, different functions, or different effects (MPEP § 806.04, MPEP § 808.01). In the instant case the different inventions are drawn to different products and an apparatus. They each have different modes of operation and different effects. The amino acid and nucleic acid do not have the same function or mode of operation as the apparatus.

Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.

Because these inventions are distinct for the reasons given above and the search required for Group I is not required for Group II or III or IV, restriction for examination purposes as indicated is proper.

Applicant is advised that the reply to this requirement to be complete must include an election of the invention to be examined even though the requirement be traversed (37 CFR 1.143).

Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

ELECTION

Applicants provisionally elect Group I, claims 1-17 and 22, drawn to a computer-implemented method for predicting at least one amino acid sequence, with traverse.

TRAVERSAL

Applicants respectfully traverse the Examiner's restriction requirement for the following reasons.

The restriction requirement is improper because it omits "an appropriate explanation" as to the existence of a "serious burden" if a restriction were not required. (MPEP § 803). An examination of all the claims in this application would not pose a serious burden because a search of any one of invention Groups I through IV would require searching the prior art areas appropriate to the other invention Groups.

Additionally, applicants have paid a filing fee for an examination of all the claims in this application. If the Examiner refuses to examine the claims paid for when this application was filed, applicants must pay duplicative fees to file divisional applications for the non-elected or withdrawn groups of claims.

CONCLUSION

In view of the foregoing, applicants respectfully request the Examiner to reconsider and withdraw the restriction requirement and to examine claims 1-22 pending in this application.

If the Examiner has any questions or wishes to discuss this matter, the Examiner is welcomed to telephone the undersigned attorney.

Respectfully submitted,

NATH & ASSOCIATES PLLC

Date:

June 13, 2002

NATH & ASSOCIATES PLLC
1030 Fifteenth Street, N.W.
Sixth Floor
Washington, D.C. 20005-1503
Tel: (202) 775-8383
Fax: (202) 775-8396

GMN:TLJ:JBG:\restrict.roa.doc

Todd Juneau

Gary M. Nath
Reg. No. 26,965
Todd L. Juneau
Reg. No. 40,669
Customer No. 20529